Verīzonwireless

WY1 MOUNT WASHBURN

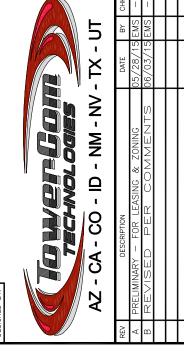
PUBLIC RECORD PARCEL NO. 99000100000001

MOUNT WASHBURN YELLOWSTONE NATIONAL PARK PARK COUNTY, WYOMING

PROPOSED 39'-6" SELF SUPPORT TOWERS EXISTING COMMUNICATIONS SITE

CONTRACTOR SHALL CONTACT YELLOWSTONE RADIO SHOP 48 HOURS PRIOR TO ACCESSING SITE PER PARK ACCESS GUIDELINES.

PHONE: 307-344-2470



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SHEET INDEX: SHEET | TITLE REV. SPECIFICATION & PHOTO SHEET SITE PLAN ENLARGED PROPOSED SITE PLAN EXISTING FLEVATIONS PROPOSED ELEVATIONS **ELEVATIONS**

PROJECT INDEX:

VERIZON WIRELESS 2730 BOZEMAN AVENUE HELENA, MT 59601

CONTACT: KENT MCDERMOTT PHONE: 406-941-2110

ENGINEERS/DESIGNERS: TOWERCOM TECHNOLOGIES LLC 767 NORTH STAR RD. STAR, ID 83669

CONTACT: MARK ANDERSON PHONE: 208-286-0266 EXT. 106 ZONING/SITE AQ: TAEC

CONTACT: ANNE DREBIN PHONE: 206-947-4025

ADA COMPLIANCE:

THIS FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. LANDINGS AND EXITS SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES

GENERAL PROJECT NOTES:

- PRIOR TO SUBMITTING A BID, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF/HERSELF WITH THE SCOPE OF WORK AND ALL CONDITIONS AFFECTING THE NEW PROJECT.
- CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS AND DIMENSIONS OF THE JOB SITE AND CONFIRM THAT WORK AS INDICATED ON THESE CONSTRUCTION DOCUMENTS CAN BE ACCOMPLISHED AS SHOWN PRIOR TO COMMENCEMENT
- ALL FIELD MODIFICATIONS BEFORE, DURING, OR AFTER CONSTRUCTION SHALL BE APPROVED IN WRITING BY A VERIZON WIRELESS REPRESENTATIVE.
- INSTALL ALL EQUIPMENT AND MATERIALS PER THE MANUFACTURER'S RECOMMENDATIONS, U.N.O.
- NOTIFY VERIZON WIRELESS, IN WRITING, OF ANY MAJOR DISCREPANCIES REGARDING THE CONTRACT DOCUMENTS, EXISTING CONDITIONS, AND DESIGN INTENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATIONS FROM A VERIZON WIRELESS REPRESENTATIVE AND ADJUSTING THE BID ACCORDINGLY
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF THE WORK UNDER THE CONTRACT.
- CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS AND FINISHES THAT ARE TO REMAIN. CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY OCCUR DURING THE CONSTRUCTION TO THE SATISFACTION OF A VERIZON WIRELESS REPRESENTATIVE.
- THE CONTRACTOR IS RESPONSIBLE FOR RED-LINING THE CONSTRUCTION PLANS TO ILLUSTRATE THE AS BUILT CONDITION OF THE SITE. FOLLOWING THE FINAL INSPECTION BY VERIZON WIRELESS, THE CONTRACTOR SHALL PROVIDE VERIZON WIRELESS WITH ONE COPY OF ALL RED-LINED DRAWINGS.
- VERIFY ALL FINAL EQUIPMENT WITH A VERIZON WIRELESS REPRESENTATIVE. ALL EQUIPMENT LAYOUT, SPECS, PERFORMANCE INSTALLATION AND THEIR FINAL LOCATION ARE TO BE APPROVED BY VERIZON WIRELESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS/HER WORK WITH THE WORK AND CLEARANCES REQUIRED BY OTHERS RELATED TO SAID INSTALLATIONS

PROJECT INFORMATION:

PROPERTY OWNER:	YELLOWSTONE NATIONAL PARK
JURISDICTION:	PARK COUNTY, WYOMING.
PUBLIC RECORD PARCEL NO:	99000100000001

DRIVING DIRECTIONS:

LATITUDE: 44°47'50.4"N LOGITUDF: 1116°8'7 13"W

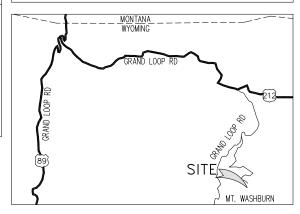
FROM THE VERIZON WIRELESS OFFICE LOCATED AT 2730 BOZEMAN AVE HELENA, MT. HEAD EAST ON BOZEMAN AVE TOWARD CARTER DR 0.3 MILES. TAKE THE 1ST RIGHT ONTO CARTER DR 0.6 MILES. TAKE THE 3RD LEFT ONTO US-287 S/PROSPECT AVE, CONTINUE TO FOLLOW US-287 S 61.9 MILES. TURN LEFT TO MERGE ONTO I-90 E TOWARD BILLINGS FOR 57.7 MILES. TAKE EXIT 333 FOR US-89 S TOWARD CITY CENTER/YELLOWSTONE/NATIONAL PARK 0.2 MILES. TURN LEFT ONTO US-89 S FOR 53.5 MILES. TURN LEFT ONTO GRAND LOOP ROAD AND CONTINUE 25 MILES TO CHITTENDON ROAD. TURN RIGHT AND CONTINUE TO SITE AT THE END OF CHITTENDON ROAD ON TOP OF MOUNT

PROJECT DESCRIPTION:

THIS PROJECT CONSISTS OF THE FOLLOWING: • THREE (3) EXISTING PANEL ANTENNAS

- TWO (2) WOOD POLES INSTALLATION
- TWELVE (12) PROPOSED PANEL ANTENNAS
- FIVE (5) PROPOSED HP MICROWAVE ANTENNAS • FOUR (4) SELF SUPPORT TOWERS RELOCATION
- . TWELVE (12) EXISTING OMNI ANTENNAS • THREE (3) EXISTING DI-POLES
- THREE (3) GRID DISHES
- ONE (1) EXISTING GPS ANTENNA
- FUTURE INSTALLATION
- TWO (2) FUTURE MICROWAVES

RADIATION FROM THIS FACILITY WILL NOT INTERFERE WITH OPERATION OF OTHER COMMUNICATION DEVICES



VICINITY MAP NORTH



WY1 MOUNT WASHBURN

PROPOSED 39'-6" SELF SUPPORT TOWERS EXISTING COMMUNICATIONS SITE

PROJECT ADDRESS:

MOUNT WASHBURN YELLOWSTONE NATIONAL PARK PARK COUNTY, WYOMING

TITLE SHEET

SAVE DATE:

6/3/2015 10:00 AM

T1

GENERAL PROJECT NOTES:

- 1. CONTRACTOR IS RESPONSIBLE FOR ERECTING TEMPORARY BARRICADES AND/OR FENCING TO PROTECT THE SAFETY OF THE PUBLIC DURING CONSTRUCTION. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY BARRIERS AND REPAIR ALL DAMAGE TO PROPERTY ON THE SITE CAUSED BY THIS CONSTRUCTION. THE COST OF REPAIR IS THE CONTRACTOR'S RESPONSIBILITY. (IF COMPOUND FENCE DOES NOT EXIST)
- 2. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE PRIOR TO ORDERING ANY MATERIALS OR CONDUCTING ANY WORK.
- 4. EXCESS SOIL MATERIAL AND DEBRIS CAUSED BY THIS CONSTRUCTION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.
- 5. CONTRACTOR SHALL MAKE ADJUSTMENTS TO GRADING ELEVATIONS AS NECESSARY TO ENSURE A SITE FREE OF DRAINAGE PROBLEMS.
- 6. CONTRACTOR SHALL COORDINATE A CONSTRUCTION LAYDOWN AREA WITH THE PROPERTY OWNER. CONSTRUCTION LAYDOWN AREA SHALL BE FENCED—IN WITH TEMPORARY (45 DAY) CONSTRUCTION FENCE. THE TEMPORARY FENCE SHALL BE CONSTRUCTED OF 6' HIGH CHAIN LINK FABRIC AND IS TO BE REMOVED AT THE END OF CONSTRUCTION. LAYDOWN AREA IS TO BE RESTORED TO ITS ORIGINAL CONDITION AFTER FENCE REMOVAL. (IF COMPOUND FENCE DOES NOT EXIST)
- 7. SURVEY INFORMATION SHOWN WAS CREATED FROM RECORD INFORMATION AND DOES NOT CONSTITUTE A LEGAL BOUNDARY SURVEY. (IF PROVIDED)
- 8. THESE PLANS DO NOT ADDRESS THE SAFETY AND STABILITY OF THE STRUCTURE DURING ASSEMBLY AND ERECTION, WHICH ARE THE RESPONSIBILITY OF THE ERECTOR, BASED ON THE MEANS AND METHODS CHOSEN BY THE ERECTOR.
- 9. CONTRACTOR SHALL KEEP VERIZON WIRELESS "NO SERVICE," TO A MINIMUM DURING THE MAINTENANCE WINDOW SCHEDULE FOR THE NEW ANTENNA MODIFICATIONS.

GENERAL CONTRACTOR NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE PROJECT SCOPE OF WORK DEFINED UNDER THE REQUEST FOR PROPOSAL (RFP) FOR THIS PROJECT AND ALL ASSOCIATED ATTACHMENTS AND DOCUMENTS PROVIDED.

THE RFP AND ALL ASSOCIATED DOCUMENTS SHALL DEFINE THE COMPLETE PROJECT SCOPE OF WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL DOCUMENTS AND IS SOLELY RESPONSIBLE FOR ALL WORK.

ALL DOCUMENTS INCLUDED WITHIN THE PROJECT REQUEST FOR PROPOSAL ARE REQUIRED FOR THE COMPLETE PROJECT SCOPE OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK (EQUIPMENT, MATERIAL, INSTALLATION, TESTING, ETC.) INDICATED IN ALL DOCUMENTS. THE RFP, VERIZON WIRELESS NETWORK STANDARDS AND PROJECT ADDENDUMS AND CLARIFICATIONS ARE COMPLEMENTARY TO EACH OTHER THE FORMAT OF THE SPECIFICATIONS AND DRAWING NUMBERING PER DISCIPLINE IS NOT INTENDED TO IMPLY SEGREGATION OF SUB CONTRACTOR WORK. CONTRACTOR SHALL ASSIGN ALL SUB CONTRACTOR WORK AND VERIZON WIRELESS WILL NOT ACCEPT ANY CHANGE ORDERS FOR INTERNAL CONTRACTOR WORK ASSIGNMENTS.

CONTRACTOR SHALL BE RESPONSIBLE FOR DISTRIBUTING ALL RFP DOCUMENTS TO THEIR SUB CONTRACTORS. ALL RFP DOCUMENTS ARE REQUIRED TO INDICATE THE PROJECT SCOPE OF WORK. PARTIAL SUB CONTRACTOR DOCUMENT PACKAGES ARE HIGHLY DISCOURAGED.

IN THE EVENT OF A CONFLICT BETWEEN THE DRAWINGS, SPECIFICATIONS, REFERENCED STANDARDS, VERIZON WIRELESS STANDARDS, OR AGREEMENT TERMS AND CONDITIONS THE ARCHITECT/ ENGINEER SHALL BE CONTACTED FOR FORMAL INTERPRETATION OF THE REQUIREMENTS. THE CONTRACTOR SHALL BE DEEMED TO HAVE PROVIDED THE DETAILED AND EXTENSIVE INTERPRETATION. ANY WORK INSTALLED IN CONFLICT WITH THE ARCHITECT/ ENGINEER INTERPRETATIONS SHALL BE CORRECTED BY THE CONTRACTOR AT NO EXPENSE TO VERIZON WIRELESS.

ANTENNA, MOUNTS & HARDWARE INSTALLATION NOTES:

- 1. CONTRACTOR TO INSTALL ANTENNAS, MOUNTS AND TOWER HARDWARE PER MANUFACTURER'S RECOMMENDATIONS (OR AS REQUIRED BY THE OWNER/PROVIDER)
- 2. ALL BOLTS SHALL BE TIGHTENED PER AISC REQUIREMENTS.
- 3. ANY GALVANIZED SURFACES THAT ARE DAMAGED BY ABRASIONS, CUTS, DRILLING OR FIELD WELDING DURING SHIPPING OR ERECTION SHALL BE TOUCHED—UP WITH TWO COATS OF COLD GALVANIZING COMPOUND MEETING THE REQUIREMENTS OF ASTM A780.
- 4. ANTENNA MOUNTS SHALL NOT BE USED AS A CLIMBING DEVICE. WORKERS SHALL ALWAYS TIE OFF TO AN APPROVED CLIMBING POINT.
- 5. SEE ALSO GENERAL ANTENNA NOTES ON SHEET RF1 (IF APPLICABLE).

STRUCTURAL DESIGN CRITERIA:

ALL LOADS DERIVED FROM REQUIREMENTS OF INTERNATIONAL BUILDING CODE 2009, ASCE 7-05, "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES" & ANSI TIA-222-G "STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS".

BUILDING STRUCTURES:

- 1. WIND LOADS: IBC 2009 \$1609 & ASCE 7-05 \$6.4 (SIMPLIFIED METHOD)

 V3s = 90 MPH

 OCCUPANCY CAT. = II; EXPOSURE CAT. = C; IMPORTANCE FACTOR = 1.0
- 2. SEISMIC LOADS: IBC 2009 \$1613 & ASCE 7-05 \$12.14 (SIMPLIFIED METHOD)
- OCCUPANCY CAT. = II; SITE CLASS = D $V = \underline{F(Sps)W}$
 - F = 1.0 (SINGLE-STORY), 1.1 (TWO STORY), 1.2 (THREE STORY) SDS = (2/3) SMS
 - R = 1.5 (ORDINARY PLAIN CONCRETE SHEARWALLS),
 - 6.5 (LIGHT-FRAMED WALLS W/ WOOD STRUCTURAL PANELS),
 - 4.0 (ORDINARY REINFORCED CONCRETE SHEARWALLS)

COMMUNICATIONS STRUCTURES:

- - V = 30 MPH (0" RADIAL ICE)
 - STRUCTURE CLASS. = II; EXPOSURE CAT. = C; IMPORTANCE FACTOR = 1.0
- SEISMIC LOADS*: IBC 2009 §1613, ASCE 7-05 §15.6.6 & ANSI TIA-222-G

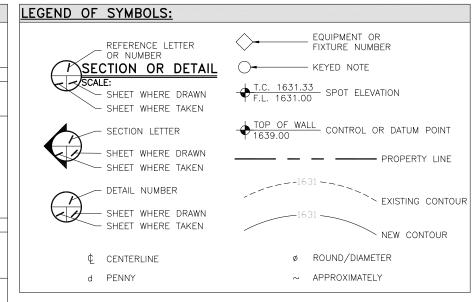
 *MAY BE IGNORED FOR STRUCTURE CLASS | AND/OR EARTHQUAKE SPECTRAL

 RESPONSE FOR SHORT PERIOD (Ss) ≤ 1.0

 STRUCT. CLASS. = II; OCC. CAT. = II; SITE CLASS = D; IMPORTANCE FACTOR = 1.0
 - STRUCT. CLASS. = II; OCC. CAT. = II; SITE CLASS = D; IMPORTANCE FACTOR = 1.0 $V = \frac{Sds(M)}{R}$ (EQUIVALENT LATERAL FORCE PROCEDURE (METHOD 1))
 - ${\rm V} \ = \ \Sigma \, \underline{{\rm Saz}({\rm Wz}){\rm I}} \ \ ({\rm EQUIVALENT} \ \ {\rm MODAL} \ \ {\rm ANALYSIS} \ \ {\rm PROCEDURE} \ \ ({\rm METHOD} \ \ 2))$



VIEW OF EXISTING RANGER STATION/COMMUNICATION CENTER (LOOKING SOUTHEAST)





VIEW OF EXISTING RANGER STATION/COMMUNICATION CENTER (LOOKING SOUTHWEST)



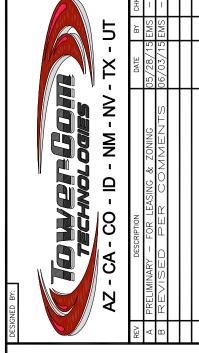
VIEW OF EXISTING RANGER STATION/COMMUNICATION CENTER (LOOKING NORTH)

veri<u>zon</u>wireless

DESIGNED FOR:

2730 BOZEMAN AVE. HELENA, MONTANA 59601

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PROJECT NAME:

WY1 MOUNT WASHBURN

PROPOSED 39'-6"
SELF SUPPORT TOWERS
EXISTING COMMUNICATIONS SITE

PROJECT ADDRESS:

MOUNT WASHBURN
YELLOWSTONE NATIONAL PARK
PARK COUNTY, WYOMING

SHEET TITLE:

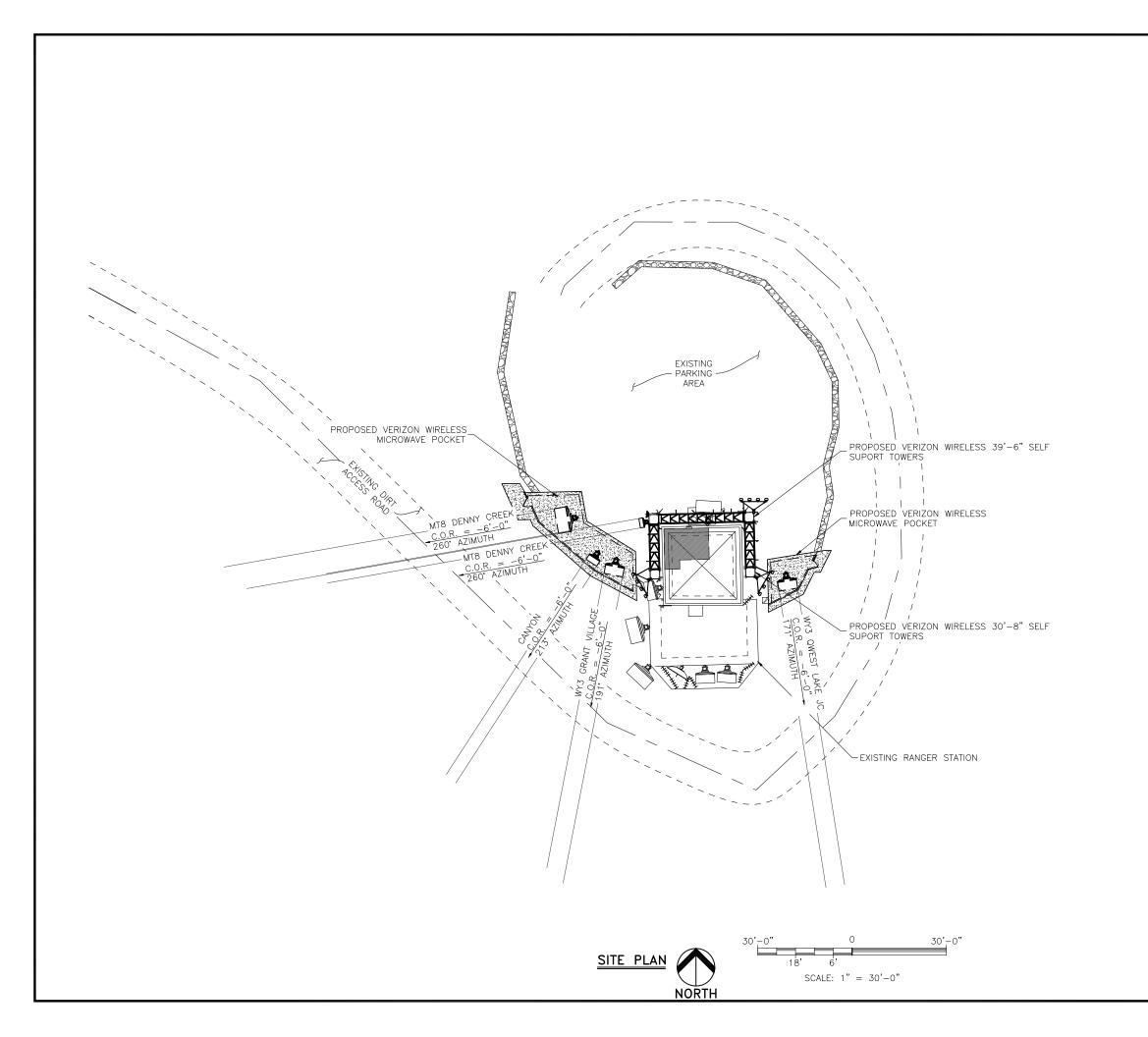
SPECIFICATION & PHOTO SHEET

SAVE DATE:

6/3/2015 10:00 AM

HEET NUMBER:

PS1



DESIGNED FOR:

veri<u>zon</u>wireless

2730 BOZEMAN AVE. HELENA, MONTANA 59601

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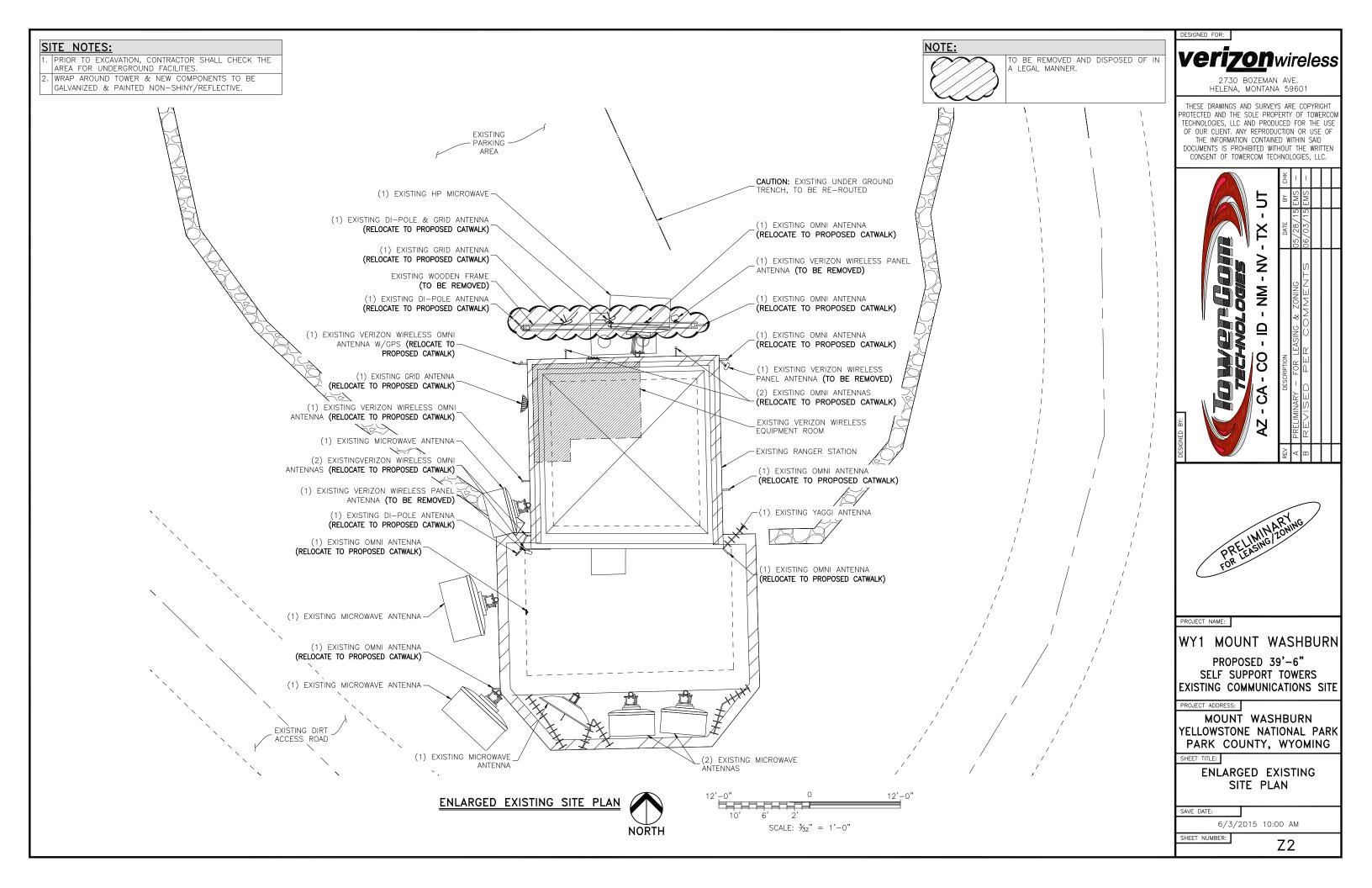
SITE PLAN

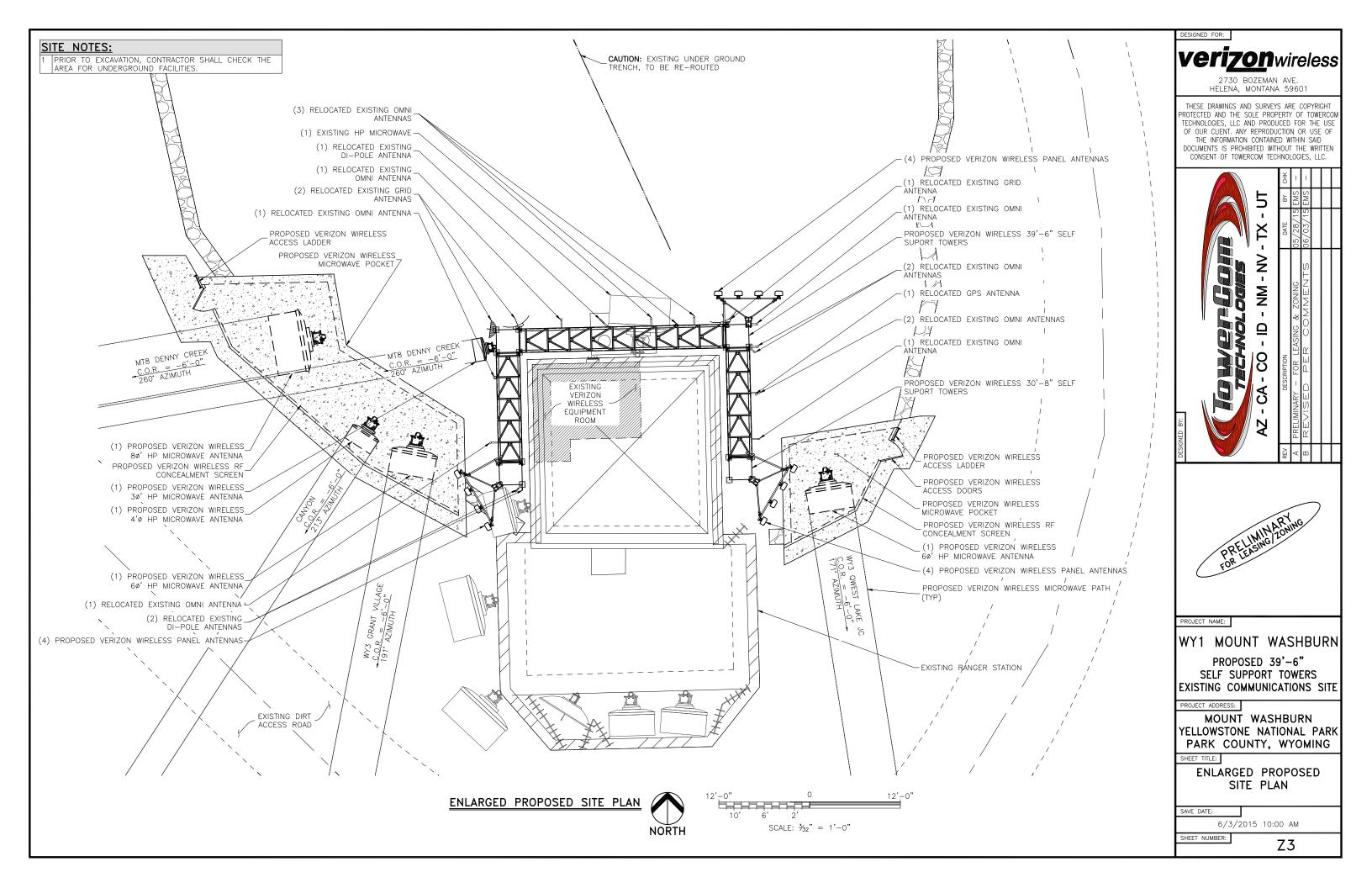
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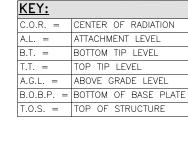
Z1

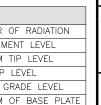




NOTE:

- <u>REMOVAL</u>
- THREE (3) EXISTING PANEL ANTENNAS
- TWO (2) WOOD POLE RELOCATION TO PROPOSED CATWALK:
- TWELVE (12) EXISTING OMNI ANTENNAS
- THREE (3) EXISTING DI-POLES
- THREE (3) EXISTING GRID DISHES • ONE (1) EXISTING GPS ANTENNA

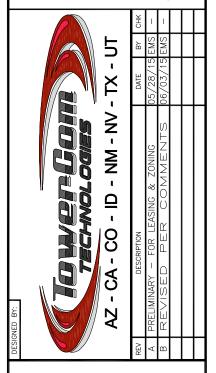






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PROJECT NAME:

WY1 MOUNT WASHBURN

PROPOSED 39'-6" SELF SUPPORT TOWERS EXISTING COMMUNICATIONS SITE

PROJECT ADDRESS:

MOUNT WASHBURN YELLOWSTONE NATIONAL PARK PARK COUNTY, WYOMING

SHEET TITLE:

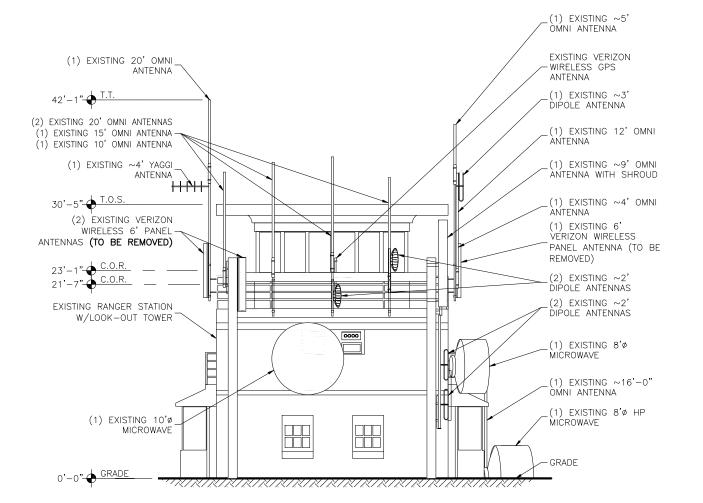
EXISTING ELEVATIONS

SAVE DATE:

6/3/2015 10:00 AM

SHEET NUMBER:

Z4

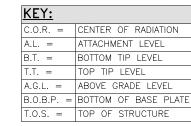


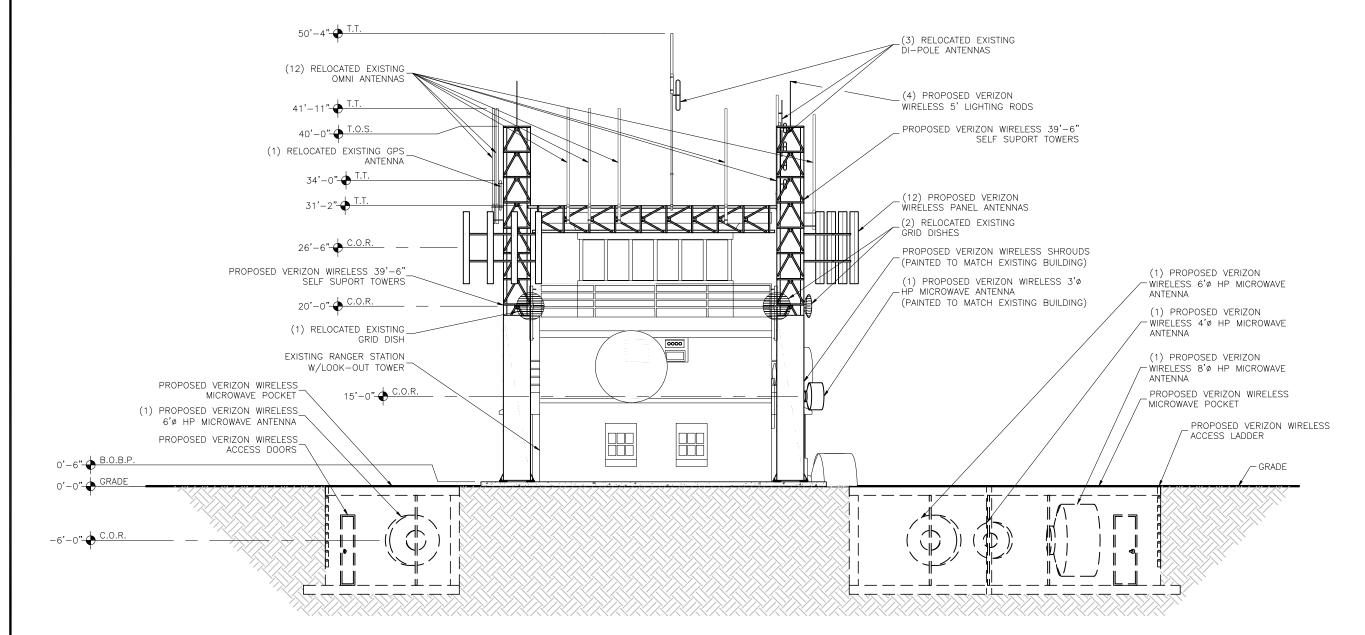
EXISTING NORTH ELEVATION SCALE: N.T.S.

NOTE:

- REMOVAL

 THREE (3) EXISTING
- THREE (3) EXISTING PANEL ANTENNAS
- TWO (2) WOOD POLES
- RELOCATION TO PROPOSED CATWALK:
- TWELVE (12) EXISTING OMNI ANTENNAS
- THREE (3) EXISTING DI-POLES
 THREE (3) EXISTING GRID DISHES
- ONE (1) EXISTING GPS ANTENNA





PROPOSED NORTH ELEVATION SCALE: N.T.S.

2730 BOZEMAN AVE.
HELENA, MONTANA 59601

DESIGNED FOR:

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PROJECT NAME:

WY1 MOUNT WASHBURN

PROPOSED 39'-6"
SELF SUPPORT TOWERS
EXISTING COMMUNICATIONS SITE

PROJECT ADDRESS:

MOUNT WASHBURN
YELLOWSTONE NATIONAL PARK
PARK COUNTY, WYOMING

SHEET TITLE:

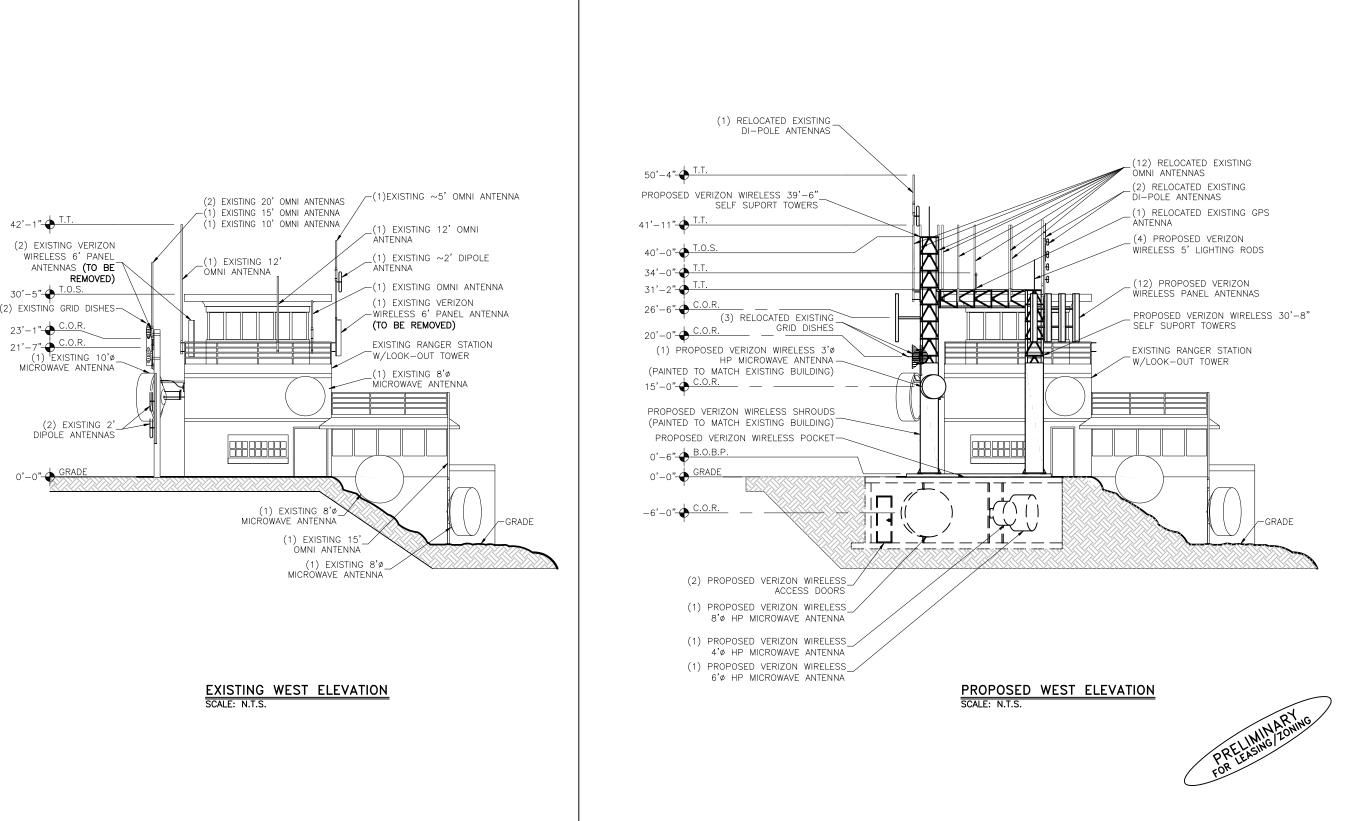
PROPOSED ELEVATIONS

SAVE DATE:

6/3/2015 10:00 AM

SHEET NUMBER:

Z5



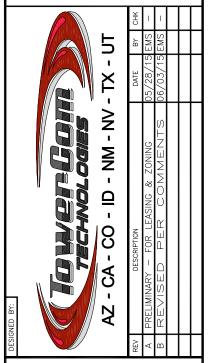
DESIGNED FOR: C.O.R. = CENTER OF RADIATION A.L. = ATTACHMENT LEVEL BOTTOM TIP LEVEL TOP TIP LEVEL A.G.L. = ABOVE GRADE LEVEL B.O.B.P. = BOTTOM OF BASE PLATE

KEY:

T.O.S. = TOP OF STRUCTURE

2730 BOZEMAN AVE. HELENA, MONTANA 59601

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MOUNT WASHBURN YELLOWSTONE NATIONAL PARK PARK COUNTY, WYOMING

SHEET TITLE:

ELEVATIONS

SAVE DATE:

6/3/2015 10:00 AM

SHEET NUMBER:

Z6